



A.D. 1862, 30th May. N^o 1623.

SPECIFICATION

OF

WILLIAM FOOTMAN.

TREATING SEWAGE.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,
25, SOUTHAMPTON BUILDINGS, HOLBORN.

1862.



A.D. 1862, 30th May. N° 1623.

Treating Sewage.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by William Footman at the Office of the Commissioners of Patents, with his Petition, on the 30th May 1862.

I, WILLIAM FOOTMAN, of No. 5, Great Queen Street, Westminster, in the County of Middlesex, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN THE TREATMENT AND USE OF SEWAGE AND LIQUID MANURES, AND IN RESERVOIRS AND PIPES TO BE USED THEREIN," to be as follows:—

The object of my Invention is to treat and dispose of the sewage of towns and other places, and to manure land with sewage water or other fertilizing liquids in a more efficacious and less obnoxious manner than heretofore.

The nature of my Invention consists, first, in constructing tanks or reservoirs to receive the sewage, and to effect a separation of the liquid from the floating and sedimentary matters contained therein; secondly, in laying down an inlet system of underground pipes for manuring the land with liquid manure in conjunction with an outlet system of underground pipes for draining the land from water; thirdly, in the manufacture of the said underground pipes to be used for the above purposes.

In order to carry out my Invention I first construct a covered tank or reservoir for the reception of the sewage, and then proceed to separate the liquid from the solid and floating matters contained therein. This I do by first fixing one or more inclined gratings or perforated plates at the top or mouth of the reservoir, and there intercept in their passage the floating matters

Footman's Improvements in the Treatment of Sewage.

contained in the sewage. The bottom of the reservoir I form in compartments, and incline the sides thereof to a centre, from which centre I lay a drain or pipe to convey away the sludge or sediment to a pit outside. I form the bottom of the pit with porous substances so as to draw off the liquid from the sludge, and I mix earth with the sediment as it accumulates, and carry the same away for manuring the land as required. 5

Secondly, in using and applying the sewage or liquid manure, I form an outlet system of pipes for the thorough drainage of the land by laying down rows of pipes across the land a few feet below the surface of the ground, but with much smaller intervals between the rows than is now usual, and at as small a gradient as possible, the rows leading to a ditch or other ordinary outlet. 10 I then construct an inlet system of pipes for saturating or manuring the land by laying down a row of pipes in each of the spaces between the rows of the above-described outlet or drainage system. The rows of the inlet system are laid a few inches only beneath the surface of the ground, and are fed from main or supply pipes leading from the tank or reservoir. 15 When the ground has an inclined surface I sometimes run the main or supply pipe down the incline in a zig-zag direction, and feed inlet pipes made to issue from the angles, or I sometimes run all the pipes so as to follow the contour levels of the land. 20

Thirdly, in laying down the pipes to be used in the systems herein-before described, although I sometimes use ordinary drain pipes, I would prefer to use pipes for the inlet system made with projections running the whole length on each side and bending downwards so as to form lateral and inverted channels on each side of the pipe. 25

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